ABSTRACT

Disclosed are, *inter alia*, methods, apparatus, data structures, computer-readable medium, mechanisms, and means for merging indications of matching items of multiple groups and possibly associated with skip conditions to identify winning entries of particular use for implementing access control lists. Indications are received typically from an associative memory bank indicating which locations were matched during a lookup operation. Each of the entries is typically associated with one or more hierarchical groups and a skip or no-skip condition. The matching entries are merged to identify one or more wining entries, these being matching entries not in a group that is skipped. A group is typically skipped if the highest priority matching entry of the particular group is associated with a skip condition. A priority encoder can be used to identify a single highest priority winning entry from the winning entries.

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